

# A NEW SPECIES OF THE BOARFISH GENUS *ANTIGONIA* FROM THE WESTERN ATLANTIC

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Specimens of boarfish of the genus *Antigonia* from the Western Atlantic that we have examined comprise two taxonomically distinct and variable forms. One of these is identified as *Antigonia capros* Lowe. This species fits the classical concept of *Antigonia* in having body depth generally greater than or equal to the standard length. The second form has body depth generally less than the standard length. It is described here as a new species.

The following description is in part extracted from a manuscript that has been accepted for inclusion in the Bulletin of the Florida State Museum, but that has been delayed in publication. The subsequent publication will contain biological data and more complete descriptions of the two Western Atlantic species of *Antigonia* and their relationships to each other and to nominal species of *Antigonia* from the Indo-Pacific. Paratypes have been distributed to or identified in the collections of the several museums listed below, and the description of the new species is published at this time to make the name available.

## ANTIGONIA COMBATIA, new species

(Figure 1)

*Diagnosis:*<sup>3</sup> An *Antigonia* with dorsal spines 9 (rarely 10), dorsal softrays 29 (26 to 30), anal softrays 27 (23 to 28), pectoral I-12 (rarely I-11 or I-13), scale rows 53 (about 49 to 57), body depth 66.7 (100.8 to 62.4), third (longest) dorsal spine length 16.2 (30.2 to 16.2), first (longest) anal spine length 7.7 (16.2 to 7.7), pelvic spine length 12.4 (22.6 to 12.4), upper jaw length 9.0 (8.1 to 11.1).

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<sup>3</sup> The number after each character is the value recorded for the holotype. Numbers in parentheses following this are ranges in values of all specimens. Where the proportion decreases with growth, the larger extreme of the range is placed first. Body proportions are in percent of standard length (% S.L.). This procedure is followed in the Description.

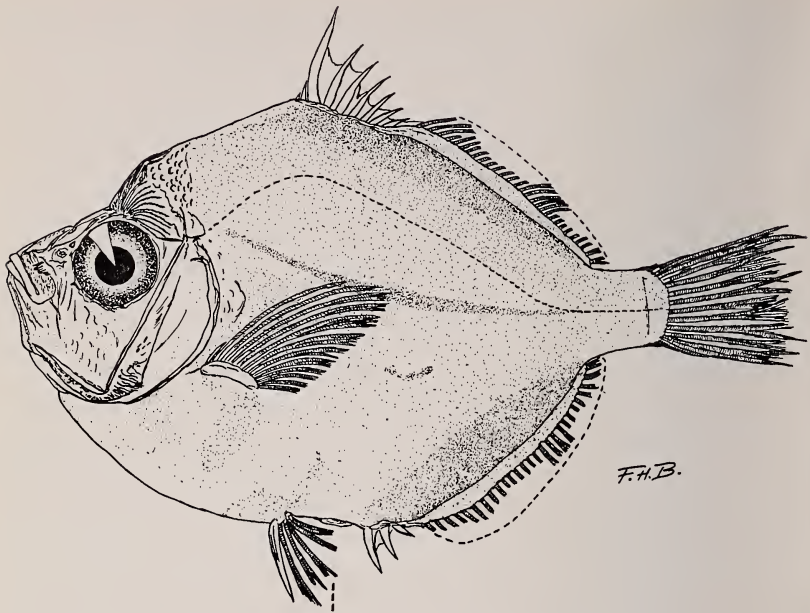


Figure 1. *Antignonia combatia*, holotype, USNM 159597, 117 mm. in standard length, Combat sta. 259, 24°29' N., 83°28' W., southwest of Tortugas, Florida.

*Description:* Body compressed and elevated. Greatest vertical body depth, 66.7 (100.8-62.4). Snout to 1st dorsal spine, 50.0 (69.4-50.0). Snout to 1st anal spine, 68.8 (84.5-66.7). Depth of peduncle at caudal base, 12.0 (16.2-11.9).

Head length, 34.2 (43.4-34.2). Profile changing with growth; generally with an apex produced by upper end of supraoccipital crest, and concavities between apex and dorsal fin origin and between apex and snout, these concavities varying with growth stage and individuals. Snout length, 10.3 (12.5-9.9). Cleft of mouth angular; lower jaw slightly projecting. Upper jaw length, 9.0 (8.1-11.1). Eye diameter, 13.2 (20.4-13.2).

Gill rakers, 5 (3-5) + 16 (14-16). Branchiostegals, 6. Scale rows, 53 (about 49 to 57).

Dorsal spines, 9 (9-10); third spine the longest, its length, 16.2 (30.2-16.2). Anal spines, 3 (3); first spine the longest, its length, 7.7 (16.2-7.7). Dorsal spines connected to dorsal softrays and anal spines to anal softrays each by a shallow notched membrane. Dor-

sal softrays, 29 (26 to 30; modally, 28). Anal softrays, 27 (23 to 28; modally, 26). Anal fin base length, 44.4 (55.2-40.7). Caudal fin subtruncate; caudal principal rays, 6 + 6; caudal secondary rays, 4 + 3. Pectoral fin bluntly pointed; pectoral rays, I-12 (rarely, I-11 or I-13); pectoral length, 29.1 (40.4-28.5). Pelvic fin pointed; pelvic rays, I-5 (I-5); pelvic spine length, 12.4 (22.6-12.4).

Pigmentation essentially faded out on preserved specimens. A Kodachrome slide taken of several paratypes immediately after capture shows the dorsal aspects of the head and body to be reddish pink blending into pink on the sides and then into silver on the ventrolateral aspects.

*Relationships:* Because the relationships of the nominal species of *Antigonia* are presently uncertain and significant data on the intraspecific variations of only two of them (*A. combatia* and *A. capros*) are available, *A. combatia* is distinguished below from each of the nominal species by the characters we consider most significant. *A. combatia* differs from *A. capros* Lowe, *A. aurora* (Müller and Troschel), *A. steindachneri* Jordan and Fowler, *A. browni* Fowler, and *A. eos* Gilbert in having fewer dorsal and anal softrays (31 or more dorsal and 29 or more anal softrays in the other species) and in having a shorter pelvic spine (24 percent of standard length or greater in the other species). *A. combatia* and the remaining nominal species have generally similar numbers of dorsal and anal softrays. *A. combatia* differs from *A. rubescens* (Günther) and *A. fowleri* Franz in having a greater number of oblique scale rows (38 to 47 rows in *A. rubescens* and *A. fowleri*), and in having a shorter pelvic spine at comparable body sizes (from about 20 to 50 mm. S.L., 14 to 23% S.L. in *A. combatia*, 24 to 30% S.L. in the other species; above 50 mm. S.L., 12 to 20.9% S.L. in *A. combatia*, 21 to 26% S.L. in the other species). *A. combatia* differs from *A. rhomboidea* McCulloch in having a lesser body depth (about 106% S.L. in *A. rhomboidea*) and in having a shorter pelvic spine (about 26.4% S.L. in *A. rhomboidea*). *A. combatia* differs from *A. rubicunda* Ogilby in having a shorter 3rd dorsal spine (about 34% S.L. in *A. rubicunda*) and in having a shorter pelvic spine (about 28% S.L. in *A. rubicunda*). *A. combatia* differs from *A. malayanus* Weber in having one less dorsal spine (8 spines in all known specimens of *A. malayanus*) and in having a shorter upper jaw (about 12.5 to 14% S.L. in *A. malayanus*). [*Antigonia mulleri*

Klunzinger appears to belong to the family Zeidae. *Antigonia ben-hatatate* (Bleeker) is apparently a *nomen nudum*.]

*Distribution:* The holotype was taken off Tortugas, Florida. The paratypes were taken off Brazil (Amazon River), Surinam, British Guiana, Caribbean Nicaragua and Honduras, northern Cuba, Florida, North Carolina, and Massachusetts. Recorded depths of the trawl hauls in which most of the specimens were taken range from 65 to 325 fathoms.

*Holotype:* U. S. National Museum No. 159593, 117 mm. S.L., taken at COMBAT station 259, 24°29' N., 83°28' W., 7 March 1957.

*Paratypes:* Deposited in the following collections, U. S. National Museum; Chicago Natural History Museum; Academy of Natural Sciences of Philadelphia; Museum of Comparative Zoology; British Museum (Natural History); Museu Municipal do Funchal; Museu Nacional, Rio de Janeiro; Bingham Oceanographic Collection; University of Florida; Stanford University; Tulane University; University of Miami Marine Laboratory; Cornell University; Gulf Coast Research Laboratory; South Atlantic Fishery Investigations, Brunswick, Georgia. The 186 paratypes range in size from 118 to about 19 mm. S.L.

*Derivation of the Name:* Named for the M/V COMBAT, chartered by the U. S. Fish and Wildlife Service primarily for deepwater trawling exploration off the Atlantic coast of the southeastern United States. Collections made with this vessel are adding greatly to our biological knowledge of the area. COMBAT burned and sank off Mexico in December 1957.